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6SL7	15/-	9003	10/-
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2050 Kc.	7010	Kc.	7109	Kc.	8317.7	Kc.	
2075 Kc.	7012	Kc.	7118	Kc.	8318	Kc.	
2716 Kc.	7013	Kc.	7121	Kc.	8320	Kc.	
3482.5 Kc.	7020	Kc.	7125	Kc.	8488	Kc.	
3503 Kc.	7021	Kc.	7126	Kc.	8500	Kc.	
3509 Kc.	7022	Kc.	7130	Kc.	9125	Kc.	
3511 Kc.	7023	Kc.	7134	Kc.	10	Mc.	
3512 Kc.	7031	Kc.	7145	Kc.	10,511	Mc.	
3515 Kc.	7032	Kc.	7156	Kc.	10,524	Mc.	
3516 Kc.	7032.6	Kc.	7163	Kc.	10,530	Mc.	
3528 Kc.	7048	Kc.	7174	Kc.	10,536	Mc.	
3532 Kc.	7052	Kc.	7179	Kc.	10,544	Mc.	
3539.3 Kc.	7062	Kc.	7203.3	Kc.	10,546	Mc.	
3634 Kc.	7063	Kc.	8000	Kc.	10,563	Mc.	
3640 Kc.	7064	Kc.	8017.5	Kc.	11	Mc.	
3675 Kc.	7068	Kc.	8027	Kc.	12,803	Mc.	
4285 Kc.	7072	Kc.	8028.5	Kc.	14,020	Mc.	
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EDITOR:
T. D. HOGAN, VK3HX.

MANAGING EDITOR:
J. G. MARSLAND, VK3NY.

TECHNICAL EDITOR:
J. C. DUNCAN, VK3VZ.

TECHNICAL STAFF:
A. K. HEAD, VK3AKZ.
D. A. NORMAN, VK3UC.

COMPILATION:
R. W. HIGGINBOTHAM, VK3RN.
K. E. PINCOTT, VK3AFJ.

CIRCULATION:
I. K. SEWELL, VK3IK.

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EDITORIAL



OUR WANING HERITAGE

We have a heritage in our fast dwindling Amateur short wave bands which is crying out for protection—a heritage that wasn't handed down to us either, but was hewn from the unknown cosmos, developed, and pioneered by the early Amateurs, many of whom have now passed beyond the vale.

Could we say today that we have honestly protected our heritage? In a manner of speaking—yes, we have. But the encroachment into our bands by Commercials and whittling of frequencies by International Conventions and the demands of prospective Television requirements is something so vital that each and every licensed Amateur should—and will have to—shoulder some responsibility.

Warnings have been given in these columns many times for those who interest themselves in reading them. These same warnings have been printed in every language under the sun in every Amateur Society publication, so "Amateur Radio" is not saying something for the sake of having something to say. Your bands are fast disappearing!

It is not the policy of the Wireless Institute of Australia to criticise its members or any other licensed Amateur. But it is becoming impossible for a few stalwarts to protect this heritage!

To protect what's left it has been said that we cannot now expect to rely on the two larger world societies to represent Australia at the next International Telecommunications Conference—whenever that might be. We must have our own representatives there!

To make this possible, the W.I.A. Annual Convention has been cancelled for three years—three years during which funds were to be saved against the day when the expense of sending a delegate would have to be met. The time is fast approaching when the finance will be wanted.

Even before that, it might be possible to hold a Region III. Conference (this has been proposed for 1956 during the Olympic Games) so that a delegate could proceed with the backing of Region III. countries.

But all the backing in the world—financial or otherwise—will go for naught if the whole structure of Amateur Radio cannot justify its existence in the eyes of those powerful Commercial interests that sit in Geneva or elsewhere, devoid of all sentimental attachments and hardened by the political pressure which drives them to the conference table to do nothing else but procure frequencies to satisfy the hunger of the fast growing Commercial services.

We must justify our existence! It will be no good putting the blame on the Institute and those of its members who give of their precious spare time to battle for what we have left. All the backroom homework and negotiation won't hold those bands if they are not being used. And let it be said right here and now—"The bands are not being used!" They are not being used to a degree that is fast becoming frightening.

The Authorities talk about it and ring their hands as they feel the pressure being brought against them for more frequencies, more frequencies and yet more frequencies. They hear kilocycles of bandwidth almost devoid of signals hour after hour and day after day.

The Amateurs talk about it—to each other! They blame everyone and everything but themselves. BUT THEY ARE TO BLAME. No one else can take the blame. They don't use the bands. Listen on any band almost any time, do that mental arithmetic, then make up your mind to spend an hour or two per week away from the work bench or what-have-you to populate your bands—or perhaps ultimately perish.

FEDERAL EXECUTIVE.

THE CONTENTS

Wobbulators—Sweep Generators	2	Prediction Chart for March	9
Trade Review—Philips Miniature I.F. Transformer, Type 4260	7	Fifty Megacycles and Above	10
Ross A. Hull V.h.f. Memorial Trophy	7	Short Wave Listeners' Section	12
DX Activity by VK3AHH	9	Federal, QSL, and Divisional Notes	13

WOBBULATORS—SWEEP GENERATORS

BY E. CORNELIUS,* VK6EC

THIS colloquialism has become deeply entrenched in the radio-man's vocabulary, and is particularly apt. The wobbulator is a frequency modulated oscillator, covering a specific frequency range which, when used with a c.r.o., will plot the frequency response of a component, or all or part of a complete audio, video or radio frequency set up.

In the basic form the wobbulator output is a portion of the audio or radio frequency spectrum varying repetitively as a known function of time. The constant amplitude f.m. signal is fed to the unit being tested. The output of the unit is rectified by a suitable detector, and used for vertical deflection of the c.r.t. Horizontal deflection is taken from, or synchronised with, the same waveform used to "wobble" the oscillator.

As the frequency is caused to vary, and the c.r.t. spot moves horizontally, its vertical deflection is proportional to the response of the equipment under test. The resulting trace on the c.r.t. screen is an amplitude/frequency response curve. By sweeping the desired range repeatedly at a low rate, the plot is repeated continuously, persistence of vision overcoming flicker and allowing detailed examination of the response curve. Thus the response curve can be varied while being watched, and the effect of adjustments as they are being made.

F.M. OSCILLATORS F.m. oscillator circuits are legion, but for sweep generator service, some limitations apply. In general, the range swept is a large percentage of the centre frequency (wide deviation). For test equipment, a minimum of tubes is the aim. So various wide deviation f.m. oscillator circuits have been developed. Three types the author has in use will be described fairly fully. These are:

Reactance tube†
Miller tube†
Johnson Wobbulator‡

A fourth, an R/C type, will be described briefly.||

Reactance Tube.—In this type, an L/C oscillator of any type using parallel resonance has its tuned circuit shunted by a tube. This tube's circuitry is such that it simulates an inductance or a capacitance, which is variable under the control of the sweeping signal. An inductance in shunt with a tuned circuit will raise its resonant frequency, a capacitance will lower it.

The simplified circuits are shown in Figs. 1a and 1b. In 1a the reactance tube looks like an inductance, in 1b a capacitance. Components R and C, from plate to grid, have impedances such that the grid is fed almost 90° out of phase with the plate. At high frequencies, about 3.5 Mc. for orthodox tubes, the resistor becomes more and more like

a capacitor. The 90° is not maintained, and the circuit operation is impaired until the oscillator output is severely amplitude modulated.

A circuit due to Helfrich§ raises the upper frequency limit to about 30 Mc., a simplified circuit being shown in Fig. 2.

In this circuit, the 90° phase shift is obtained in two steps of 45°, using tube capacitance as the reactive elements. With it, he obtained a linear deviation of 5 Mc. at a centre frequency of 30 Mc., using 6AK5s. I adapted the circuit for a video wobbulator to obtain a deviation of 2 Mc. at a centre frequency of 11 Mc., using a 6AC7 and 6SH7s.

Miller Tube.—This method relies on the Miller effect in an amplifier tube, whereby an amplifier with purely resistive plate load shows a pure capacitance grid/cathode. This capacitance varies with the amplification being approximately equal to $C_{av} (1 + A)$ where A is the stage gain. If the tube is modulated, the capacitance varies, rising as the grid runs positive, and falling to approximately C_{av} as the tube reaches cut-off. See Fig. 3.

As long as the plate load is a pure resistance at the oscillator frequency, the added impedance across the tuned circuit is a pure capacitance. If the anode load is capacitive, the input impedance has a resistive component, which varies also, shunting the tuned circuit with a variable resistance.

To minimise this, as the frequency is raised, the anode load of the Miller tube must be reduced. Above about 6 Mc., this effect causes severe amplitude modulation of the oscillator output, but up to this frequency, it is the easiest and simplest to get to work.

As the grid of the Miller tube is accepting the full r.f. potential of the tuned circuit, the bias of this tube must be sufficiently high to prevent grid current, or the sweep signal will be completely swamped by grid leak bias, and lose control. The writer uses a 6V6 biased to about -28 volts, for an oscillator using a 6SH7. A deviation of 150 Kc. at 1.75 Mc. is quite easily obtained.

Johnson Wobbulator.—This is a most ingenious circuit, which uses only one tube, but a variation using two tubes has proved less tricky to get going. See Fig. 4.

Very wide percentage deviations are obtained, up to 40%, but I have found operation above a rest frequency of one megacycle rather erratic. Below this frequency it is a honey.

Its principle of operation lies in that the whole of the cathode r.f. current flows through the cathode coil, and only that part to the plate flows through the other. The coils are very closely coupled and the polarity is such that as the anode draws a greater share of the current, the effective inductance is reduced, and the frequency rises.

Current sharing between anode and screen is under the control of the sup-

pressor, whence the sweep is injected. An EF30 seems an ideal tube, although I have used a 6AC7, and 6SJ7. I obtain a linear deviation of 400 Kc. at a rest frequency of 1 Mc. For a full description of the operation of the circuit, see reference t.

R/C Oscillator.—This circuit is a four tube ring oscillator giving four 90° phase shifts. Special tubes seem necessary, as 6SN7s and ECC35s were not satisfactory. The circuit gives a 10 Mc. deviation at 60 Mc. centre frequency. See Fig. 5.

SWEEP For simplicity, a sine wave sweep—the a.c. mains—may be used, but it has three disabilities.

1. The sweep rate is rather high (50 c.p.s.). The resolution obtainable from a sweep oscillator is approximately equal to the square root of the total sweep per second. Thus 1 Mc. swept 50/sec., is a total sweep of 50 Mc./sec. and the resolution is the square root of this, approx. 7 Kc. Variations of response over less than this range will not be resolved. I use a sweep of 168 per sec., synchronised to a mains frequency. This is quite high enough to avoid flicker.

2. Sweep rate is fastest at the centre of the screen where the best resolution is usually wanted. At this point the sine wave is crossing the zero axis, and is changing at its greatest rate. However, the frequency plots will still be linear, as the f.m. oscillator is being frequency modulated at the same rate as the sine wave scan. I prefer to use a sawtooth.

3. The trace is displayed both left-to-right and right-to-left. There is some delay in the change in frequency, and the phasing of the two sweeps—c.r.o. and wobbulator—has to be accurate to superimpose the two traces. Increasing the delay, and necessitates a phasing control.

OSCILLATORS To obtain reasonably wide deviation using any of the L/C oscillators, the tuned circuit must be of low C, and hence has lower inherent frequency stability than is desirable. Any undesired hum or signal in the sweep will also modulate the f.m. oscillator. Thus a regulated power supply is virtually a must, although I find that a glow tube regulator is usually good enough.

MARKERS Calibration of the frequency scale is easy, if another oscillator of good frequency calibration is available. The signal from this oscillator, or signal generator, is fed into the detector, after the unit under test. The swept signal passed by the unit being tested, and the signal from the generator are mixed in the detector to cause a blip or widening of the display trace, at the frequency where the two signals zero-beat.

It is not good practice to feed the marker into the unit under test, as the marker may fall in a part of the curve where attenuation is high, and the blip not be discernible, and increase of marker input may overload the tested

*C/o. N.B.S. Transmitter #WA, Wagin, W.A.

†"Radiotron Designers' Handbook," p.1157.

‡Johnson, "Single Valve F.M. Oscillators,"

"Wireless World," May, 1949.

||Post, "V.H.P. Panoramic Receiver," "Wireless

World," Sept., 1953.

§Helfrich, "Wide Deviation Reactance Modulator," "Electronics," April, 1948.

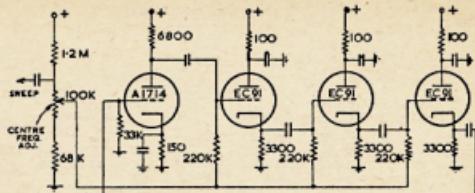
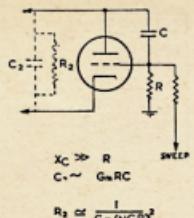
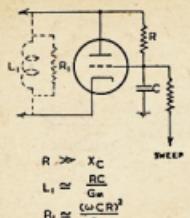


FIG. 1 - REACTANCE TUBE

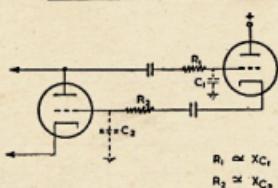


FIG. 2 - HELFRICH REACTANCE TUBE

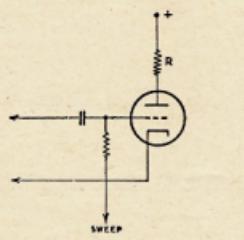
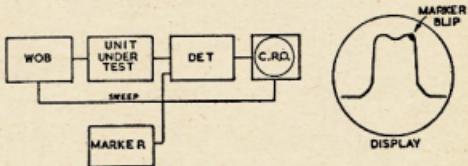


FIG. 3 - MILLER TUBE

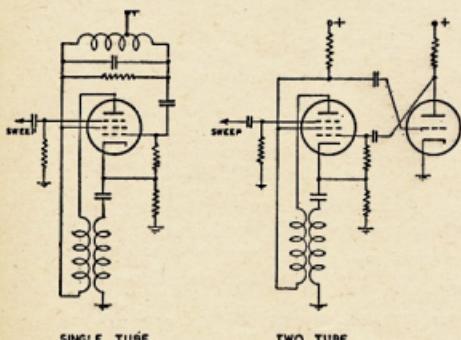


FIG. 4 - JOHNSON WOBBULATOR

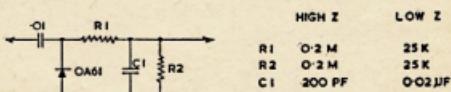


FIG. 7 - DETECTORS

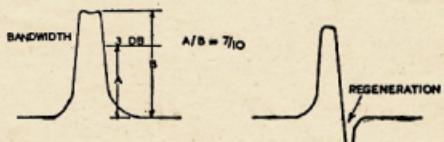


FIG. 8

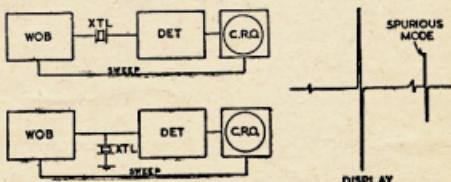


FIG. 9 - CRYSTALS

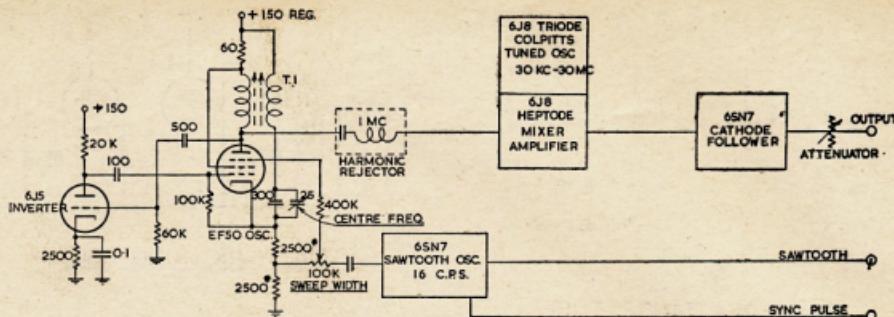


FIG. 10. $1\text{MC} \pm 200\text{ KC}$ FM. OSC OF ALIGNMENT OSCILLATOR

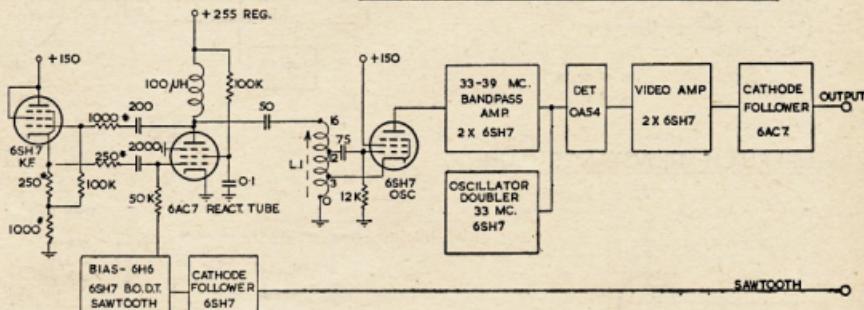


FIG. 11. $1\text{MC} + 2\text{ MC}$ FM. OSC OF VIDEO SWEEP GENERATOR

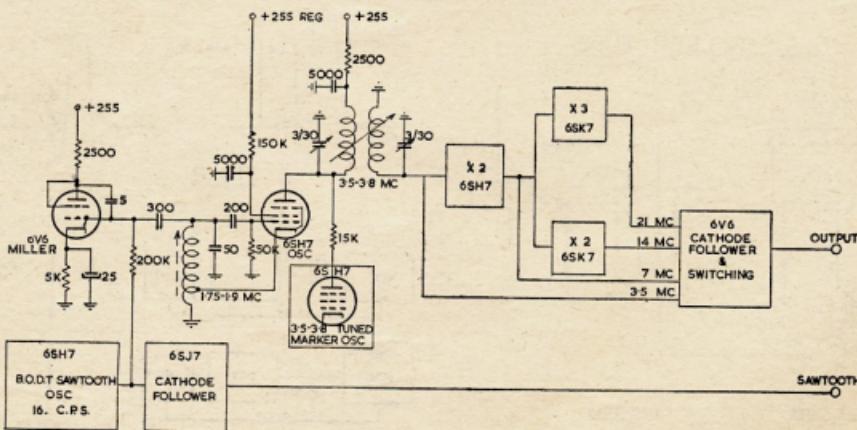


FIG. 12. $175-19\text{ MC}$ FM. OSC OF AMATEUR SWEEP GENERATOR

unit. Any part of the curve may be identified by tuning the marker so that the blip is at the point desired. The frequency can be read off the marker generator calibration. See Fig. 6.

DETECTORS The most suitable is a germanium diode with an R/C filter, in a probe. The input impedance of the detector should be suited to the test point, and should load it as little as possible. A suggested circuit is shown in Fig. 7. Thermionic diodes are not very satisfactory, as the very low signal levels often available from the detector are masked by hum from the heater supply, particularly when using the high impedance probe.

APPLICATIONS Receivers.—For receiver alignment feed wobbulator into antenna terminals at a rest frequency in the desired band, and set the deviation to about 30 Kc.

The whole receiver can then be aligned to give maximum sensitivity (height of response peak), desired bandwidth (width across 3 db points). See Fig. 8. No detector is required. The signal can be taken from the loudspeaker, headphone jacks, or from second detector output, for the c.r.t. vertical amplifier.

If the receiver is accurately calibrated, bandwidth can be measured by tuning the receiver itself so that a reference line on the c.r.t. is used to mark the 3 db points, as the receiver is tuned, and the display moves horizontally. The receiver calibrations will give the bandwidth.

I.F. Transformers or I.F. Amplifiers.—Feed the wobbulator, with rest frequency at the i.f., into the primary of the first i.f. transformer, or the mixer, via a very small capacitor (about 10 pF.). Connect probe to secondary of last i.f. transformer through another small capacitor. Adjust tuning (and coupling if adjustable) to frequency and bandwidth desired. A very finely calibrated marker oscillator is needed to measure a bandwidth of say 5 Kc. at an i.f. of 455 Kc.

I have used this method to adjust the coupling of a 455 Kc. i.f. transformer to critical (just no dip at peak of response), for a phasing type s.s.b. exciter. On subsequent check by r.f. c.r.o. measurement, I found the phase shift as near 90° as could be measured.

Crystals.—Place the crystal in series with, or in shunt with, the lead from the wobbulator to the detector. Set the rest frequency somewhere near the normal frequency of the crystal and use the widest deviation. A ringing type curve will be seen at all responses of the crystal within the swept range. The amplitude of the response is a rough guide to the crystal activity. Possible spurious modes, and their activity, are also indicated. Their frequencies can be measured with a marker. See Fig. 9.

Bandpass Exciters or Amplifiers.—As in receivers, the bandpass characteristics can be seen, a marker will show band edges, and the job can be tuned while you watch its response.

PRACTICAL Figs. 10, 11 and 12 show extracts of three CIRCUITS wobbulators in use here. I have shown in detail the circuit of the f.m. oscillator, with the rest of the unit in block form.

Fig. 10 is from a general purpose signal generator, tuning from 100 Kc. to 30 Mc. It has a 1 Mc. Johnson wobbulator with a sweep up to plus and minus 200 Kc. This is mixed in a 6J8, if required, with the signal generator output, giving swept signals plus and minus 1 Mc. either side of the setting of the main oscillator.

Fig. 11 is a simplified sketch of a video sweep generator using the reactance tube circuit by Helfrich to obtain a swept range of 11 Mc. to 13 Mc. After trebling, this is mixed with a fixed oscillator on 33 Mc., giving an output from 0-6 Mc. after mixing. This generator uses a feature called "offset" sweep, where in the f.m. oscillator only varies in frequency one way from its rest frequency.

Fig. 12 uses the Miller circuit in an Amateur bandpass sweep generator, to give a fundamental sweep from 1.75 Mc. to 1.9 Mc. By doubling and tripling, with bandpass transformers, output covering all Amateur bands from 3.5 Mc. to 21 Mc. is obtained at a fairly high level.

The panoramic adaptor is another widely used application of the wobbulator. In these units, a wobbulator at intermediate frequency beats with incoming signals in a receiver, and the beats are displayed on a c.r.t. The face of the tube is calibrated in frequency plus and minus that to which the receiver is tuned. Thus the panadaptor displays all signals incoming within a band, as vertical "blips". The character of the blips enables identification of the signal as f.m., a.m. or c.w. Their position on the screen gives their frequency.

I have attempted to cover a very wide field in a short article, and much has had to be missed. The applications outlined are only a very few of those possible.

HINTS AND KINKS

FEEDER SPREADERS

Want some lightweight high grade r.f. insulation feedline spreaders? The polyethelene core from old co-axial cable is just the thing. Strip off the outer p.v.c. sheath, then the copper braid, and after cutting to required length, pull the inner conductor wires out.

Placed across Zepp and other feedlines with spacing up to 6 inches, a large number of such spreaders will weigh but a few ounces. They are easily fixed in place by drilling a small hole through at each end, then threading binding wire through.—VK2NO.

VALVE SOCKETS FOR EF50s

Many users of EF50, RL7, RL37 and similar types designed for "T" 9-pin sockets strike trouble with the spring contacts, where the sockets have been used in some wartime gear. Some people were over-generous with tropical varnish when it was decided to tropic-treat radio equipment of earlier war vintage, resulting in the gumming up of the once flexible contact springs in valve sockets. The wafer type in particular suffered from such treatment, so that impartial or incomplete contact with valve pins occurs.

The cure is to soak such sockets for an hour or so in suitable solvent—

acetone or methylated spirits—according to the requirement. After soaking, work the springs free with a small screwdriver and then close them together with small pointed pliers so that they will grip the pins when a valve is inserted.—VK2NO.

NEUTRALISING 6J6s

Neutralising condensers for such finicky small capacities as those in 6J6 circuit are easily made from 70 ohm twin lead. Start with a 2 inch length and snip bits off with wire cutters until the required value is reached.

Another idea is to use two small brass or copper tubes set in insulating material—in a screening partition—with crossed-over p.v.c. insulated flex leads adjusted for correct capacity.—VK2NO.



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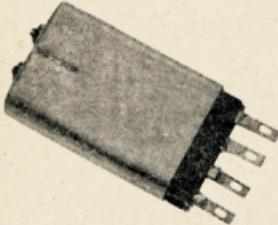
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The Philips Miniature I.F. Transformer Type 4260 has been designed for receivers with an intermediate frequency of 455 Kc, where economy and space saving are of primary importance.

Two major Philips inventions, viz., the new h.f. magnetic material "Ferroxcube," combining a high ring permeability with low losses, and the high-stability, low-loss "wire" capacitors of very small dimensions, have made it possible to construct this miniature i.f. transformer of high quality.



Two parallel coils with adjustable cores of "Ferroxcube" material are each surrounded by three small rods of the same h.f. magnetic material.

All these parts together with the fixed capacitors are supported by two pieces of high-grade "Philitite" material enclosed in an aluminium can, and are treated by a special process in low-loss compounds.

This construction ensures a very high degree of resistance against the influ-

ence of moisture and makes this transformer suitable even for very severe climatic conditions.

The fixed tuning capacitors are "wire" capacitors of 110 pF, 32 mm. long and 1.3 mm. in diameter.

In order to adjust the inductance values, small cores can be screwed into or out of each coil. These cores are fixed to the adjustment screws by means of plastic sleeves. The pitch of these screws has been chosen for quick and accurate adjustment. The sleeves guide the cores and thus prevent inaccuracies in adjustment.

The two sections possess identical characteristics, so that either of the two coils can be used as primary. This, and the fact that any of the terminals can be used as an earth connection, makes it possible to wire any set in the most efficient manner.

The unusual construction of the magnetic circuit and the very small stray capacitances of the "wire" capacitors have a favourable influence upon the characteristics of the i.f. transformer, type 4260, which has a high quality factor considering its small dimensions. The high stability and the small temperature error are of no little importance.

The dimensions of the can are such that the longest side is shorter than the corresponding dimensions of the valve holder, even in the case of the miniature valves, while the shortest side is only 10 mm. long. The filter can thus be placed in between two valves and the space it occupies is therefore reduced to a minimum. The high maximum permissible temperature (75°C.) is a great advantage in this respect.

Mounting is quickly and securely done by means of the spring, type 4261, supplied with each filter.

Technical Data:

Quality factor	.....	.....	100
kQ	.....	.....	0.9
Capacitance across primary	.....	110 pF*	
Capacitance across secondary	.....	110 pF*	
Average frequency drift, 20 c/s. per °C.	.....	.....
Maximum working temperature	.....	75°C.	
Longest side of can	.....	25 mm. (1")	
Shortest side of can	.....	10 mm. (13/32")	
Height of can	.....	36 mm. (1-7/16")	
Mounting by means of a special spring supplied with each filter.	.....	.....
* Wire capacitor.	.....	.....

The nominal working frequency is 455 Kc. for a wiring capacity not exceeding 15 pF. Other frequency ranges can be covered, depending on the wiring capacities of the i.f. circuit. If, for instance, the wiring capacity can vary between 5 and 10 pF., the transformer can be used for a range from 443 to 463 Kc.

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Pictured below is the Ross A. Hull V.h.f. Memorial Trophy. The inscription at the foot of the column reads:

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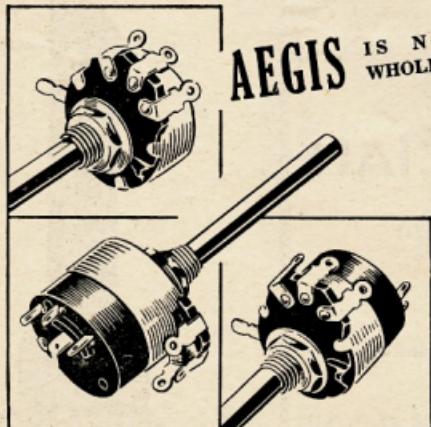
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FIFTY MEGACYCLES AND ABOVE

50 Mc. DX

VK1ZM, Macquarie Island, has advised that they have heard New Zealand on the 50 Mc. band during January, but no details given.

In New Caledonia, **FK8AB**, listening on 50 Mc. during the period of the Ross Hull Contest, heard VK2, 4, 5, ZL1 and VR2.

VR2CG, of Fiji, contacted several Australian States including, for the first time, VK6—a distance of approx. 3,900 miles. The contacts were made on 3rd January commencing with **VK6HKT** at 0034 GMT. Signals were R5 S8. VR2CG at that time was hearing all ZL districts and all VK States except VK7.

NEW SOUTH WALES

Weather conditions spoilt both fixtures of the V.h.f. Group in January, first "Operation Root Top," and then the Fox Hunt set down for Sunday, 28th. The weather was bad on the day of the trip to Mt. Kosciusko was made by Roy 2HO and Perc 2APQ as planned on 7th January without incident. The weather was perfect and after erecting the beam, setting up the gear, and making some check transmissions on the night on the top of Australia's highest peak (5,975 ft.), satisfied that everything was working OK and ready for the skeds on Saturday afternoon. However, during the night a west-easterly wind sprang up and blew the guy ropes gal gore. After spending two hours transmitting and listening on 2 mx, decided that as the weather had got worse and showed no signs of abating, with heavy storm clouds settling around the mountain, it would be better to pack up and return home. The next day was spent at home, hoping that conditions would improve and we could return and continue as planned, but when lowering the beam we were unable to hold it once the guy ropes were slackened with the result it was damaged and could not be repaired with facilities we had with us.

We then decided to go through to Tumut and on Sunday morning, with material supplied by Geoff 2BQ, Keith 2ZAA and Ross 2PN, was able to make temporary repairs to the beam and then prepared to go to Kendall—a fire lookout in the State Forests, some thirty miles south of Tumut, with Keith 2ZAA leading the way as guide. About half way to Kendall, Roy remembered that he had left his rx gear at home so he had to leave it there and inspected by the gang. Within seconds of pulling up to go back, Ross 2PN arrived with the tx and a pair of trousers we had left behind in our rush to get out to Kendall. According to Geoff 2BQ, he could come without the pants, but had to have the tx. On arrival at Kendall, further trouble developed and the "Donk" gave us a worrying hour and a half before it finally decided to work. At 1 p.m. we made our first contact with Geoff 2BQ and then proceeded with Don 3RS in Albury. Syd 3CI at Nagambie. The three Tumut boys, from their home locations, made a recording of the transmissions from each of those stations. Our first station from the south—2WHA, 2AOJ, 2GU and 2ANE in Sydney, together with several unidentified carriers, but to our disappointment were unable to make contact with Sydney.

Sydney stations who were operating in the first of the month made several good contacts. ZATE at Barrington Tops, 2OA and 2WJL in the Blue Mountains, 2ZW at the "Gib" 2KWL, 2ANP mobile marine. Sydney Harbour all made interesting contacts with home stations as well as those from far locations.

The fifth Annual Hamfest of the Division brought a number of country v.h.f. enthusiasts to the city, among them were 2AOJ, 2PN, 2BQ, 2APE, 2AXS and it was suggested that we hold a field day similar to the one held last October. This was being discussed and it is hoped that it can be arranged to take place towards the end of March.

The first meeting of the Group for 1955 took place on 4th February; the lecture for the evening was also another first, being the first lecture given by A.S.C. 2ZAA, who had been lecturing in the person of Barry 2ZAG, his subject being "V.h.f. Antennae—Theory and Design." By means of a well drawn set of diagrams and several pieces of test gear, Barry gave the theoretical details regarding the construction of antenna balancing devices and different types of feed lines, showing how to calculate the impedance for different spacings and the use of a bridge to adjust the standing

wave ratio on the feeders to a minimum. A very informative and interesting lecture, Barry.

Down on the subject of lectures, the one set down for the month of February will be given by Mr. Noel Millar, ZAQH entitled "Some marks on Detection and Suppression of Radio Interference."

On 4th February, at 8.30 p.m., the first 2 mx contacts were made with Tomlin, Keith 2ZAA and John 2ANT in Sydney successively making contact on their first sked. Congratulations to both on a fine effort. Sydney stations are advised to listen for 2ZAA at 8.30 each night. SWH has been putting a very good signal into Sydney during the past few weeks and has worked by Bob 2OA for the first time, also by 2AOA, 2ABZ, 2QZ, 2AJZ. We hear that 2JW at Orange has no difficulty in working 2WH at Forbes, also that 2AXS and 2APE with 2AMR at Dubbo promises to become very active on 2 mx very soon—2APQ.

VICTORIA

Many of the v.h.f. gang took mobiles and portable equipment with them to make the most of the weather. A radio point of view, Jack 3ZV was at Rye, he worked mobile from Arthur's Seat, Alt 3IE was at Mt. Martha, Len 3LN and Laurie 3ALY were at Portarlington. Ray 3ZBV and Max 3ZAW were at Bendigo. All were able to make contacts to Melbourne and many interesting contacts took place. Most were mobile equipped and a lot of mobile to mobile was on the air, and all find it a really fascinating side light to V.H.F. activity.

For "Operation Root Top," Laurie 3ALY went to Seres, near Geelong, Len 3LN to the hills at the back of Portarlington, Jack 3ZV to Arthur's Seat, and Alt 3IE to Mt. Martha. Many good contacts were made, particularly none with Kosciusko owing to the blizzard with the exception of Syd 3CI who made a contact when they were at Tumut.

The first Field Day of the 1955 season was held on 28th January, which was unusually wet and humid weather and took up locations on the hills. Ian 3ZAM went to Mt. Donna Buang, Jack 3ZV to Mt. Dandenong, Len 3LN to Arthur's Seat, Ray 3KD and Norm 3LN to Mt. Macedon, and Alt 3IE to Mt. Bull Hill. A good deal of calling of VK7 took place, as Col 3IL was on the band during the day, however no contacts were made. Col, however, had promised to make five minute transmissions on the half hour during the VK7 weekly DX session, which occurs between 8 and 9 every Thursday evening.

We welcome to the band Ray 3ZBH, Jack 3ZJ and Don 3PO. Don 3PO, of Ballarat, has been putting out excellent signals from Melbourne and on most occasions Eric 3AQG (40 miles from Melbourne) has been putting in excellent signals, upwards of S9.

At the V.h.f. Group meeting this month the programme of Field Days for 1955 was decided, the next one being on 6th March, then 3rd April and 1st May, which will be the final Sunday of each month, which should make it easy to remember.

The Fox Hunts have recommenced for the New Year and will continue on the second Wednesday of each month. Association "A" is not a "must" for the Fox Hunt, a rx on 144 Mc. is all that is necessary and will ensure a most enjoyable evening for you.

The long week-end for the Australia Day holiday found many members convention at Portarlington, where Laurie 3ALY, Bob 3QJ and Len 3LN camped on the foreshore. They were joined by Associate Norm Dench, Graeme 3ZAA and family, and Gordon 3JF and family on Monday. The weather was quite a year's event and hope that others will join in next year. On the road home Len 3LN and Laurie 3ALY worked mobiles between cars and at Little River worked back to Max 3BQ, whose shack was still up there. They had an approximate air-line distance of 45 miles and signals, perhaps because of the flat nature of the road, were rock steady with no sign of flutter at either end. The mental excitement until a little after Werrimull when Graeme 3ZAA then took up the contact and continued until both Laurie 3ALY and Len 3LN reached home.

Up to the present, no break-throughs have been reported to VK7. This is unusual as the VK7 DX season has been breaking through on many occasions during the summer season.—3LN.

WESTERN AUSTRALIA

50 Mc. Band conditions have been a complete washout over the winter months, nothing being heard since the first week in January. To cap the lot, the feed line on the 50 Mc. beam at 61HK has opened up somewhere along its length, which means extensive repair work.

Most of the gang seem to have turned their attention to 144 Mc., so will leave 50 Mc. for this season.

144 Mc. 6BQ spent a few days up at Bruce Rock with 6DW at the end of January and some interesting tests were carried out with Peris instruments. Over several days signal peaks to SWH and Warrnambool were found, however, 6DW's old converter was considerably down on Rolo's and Don has been telling the story against himself that his converter on the 2 mx beam produced inferior signals than Rolo's converter. The 50 Mc. beam has been checked and appears to have since been corrected. 6ZAA and 6ZAZ both made contacts with 6DW, so things are on the up and up. 6RK and 6ZAV were heard, but no contact resulted. 6ZAV is of course now in the new location and is complete with call sign at last. Welcome to 2 ZAV OM! I think you must have had about the longest wait of anybody for a license.

As it appears to be the season for portable expeditions, 6ZAA and friend, Bob Elms, packed their gear and headed off to Merrin for two or three days. Signals were heard from Merrin on three occasions and a carrier heard from Merrin by 6BO at one stage, but no actual two way QSO resulted. Contact was established with SWH over the 30 miles to Bruce Rock without any difficulty at all. Gert 6ZAV at Merrin was 6ZAA's home station off the air with a five over five tap a 36 ft. piece of water pipe.

A few more call signs issued, but not yet heard are 6ZQ, 6ZAK and 6ZAR. I believe 6ZAK is doing his N.S.T. at the moment, so may be some delay there. Leave at one week-end in five does not leave much time for Amatex Radio. 6ZAK should be the breeder for longer as the "shaking on" of 6ZAA, 6ZAK is forcibly QRT for a few months, but should be back again about June. 6ZAT still to be heard about of a week-end. 6ZAZ has been playing around with a Command rx and converter, but rumour has it that an ART might be coming up shortly. That may well solve your rx problems for a while. Gert 6ZAV has been heard when time permits. Believe you have to have a bit of your permanent shack before long Denis? SWH has been having of untold strife getting the 822B to drive successfully, but should have it OK by now. A five element beam does the radiating.

A word to note. The Institute proposes holding a Twin Metro Seminar sometime in June. No date fixed as yet, but further details will be advised. At the moment it looks like being on similar lines to the annual 7 Mc. event, but there may be some need to modify the system of judging or perhaps the times of operation to suit the occasion. Anyway if you have any suggestions, don't hesitate to put them forward.—6HK.

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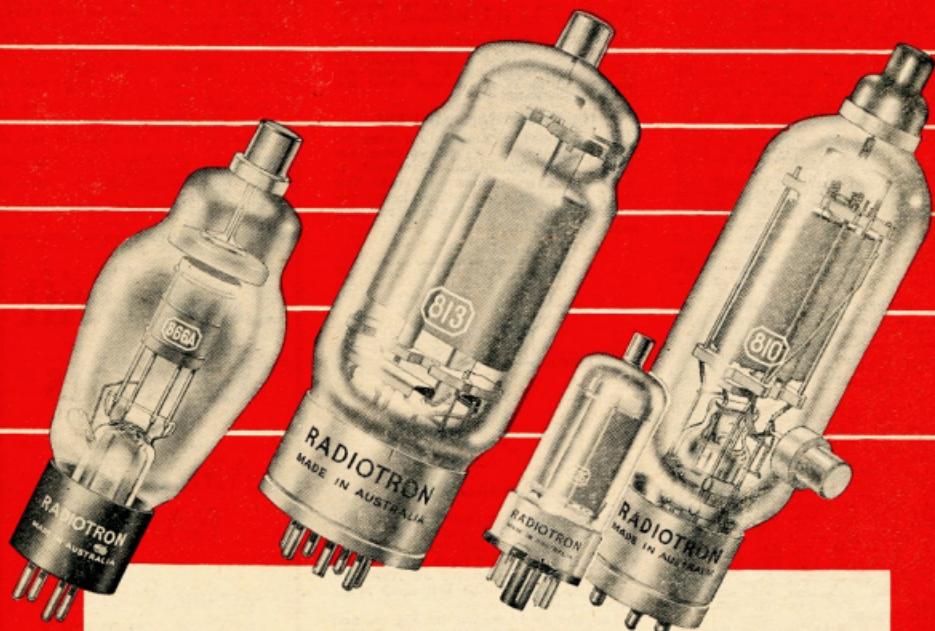
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Secretary: Harry Hickin, VK1ACD, Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at the Royal Geographical Society, Gloucester Street, Sydney.

Divisional Sub-Editor: Ted Whitting, VK1ACD, 16 Loudon Street, Five Dock.

QSL Bureau: J. B. Corbin, VK2YC, 78 Maloney St., Eastlake, Sydney (Inwards and Outwards).

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And Lakes: Harry Hawkins, VK1YL, 27 Comet Ave., Cessnock. Western: W. H. Sutt, VK3WH, Cambionia, Forbes; South Coast and Southern: Eric Wilson, VK3EW, 100 Oxford St., Warragul. South Western: J. W. S. Edge, VK2AJO, Wallace St., Colyton; St. Georges: Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah; Western Suburbs: Barry White, VK3AAB, 33 Flavelle St., Concord.

FEDERAL

RESIGNATION OF ASSISTANT FEDERAL SECRETARY

As a result of business and health reasons, the Assistant Federal Secretary, Mr. John Rice-Oxley, has found it necessary to tender his resignation from the position. Mr. John Rice-Oxley has been a most active member of Executive and it is with regret that his resignation is accepted. The duties of keeping a master copy of the "Call Book," together with disposal of material for awards, were entirely carried out and directed. John has indicated that at a later date, when his present commitments are lightened, he will again be available for any duties connected with the furtherance of the W.I.A.

FEDERAL COUNCILLOR

Federal Executive has been advised that Mr. George Moss has again been elected to the position of Federal Councillor for VK5 Division for 1955-56. As an VKGRM, he is one of the older members of the Division and his wise council is much appreciated by those closely associated with him.

AMENDMENT TO CONSTITUTION

Under the direction of the Federal Council of the Wireless Institute of Australia, Federal Executive hereby gives notice that it is intended to alter the Federal Constitution (1947) of the W.I.A. as follows:

Section 1. By inserting immediately after the word "Proficiency," the words "or Limited Amateur Operator's Certificate of Proficiency."

LIST OF SUCCESSFUL AMATEUR CANDIDATES

The following is a list of candidates who were successful at the examinations for the Amateur Operator's Certificate and Amateur Operator's Limited Certificate held on 13th July and 12th October, 1954:

New South Wales

E. A. Druffit, 43 Canal Street, Griffith.

E. W. Harder, Flat No. 6, Royal Ridge, Argent Street, Broken Hill.

J. E. Thompson, 11 Milner Parade, Bar Beach, M. G. Gledhill, 94 Ocean Street, Woolloola.

W. H. Cox, 44 Park Road, Hurstville.

J. B. Goodman, 29 Boorlongar Road, St. Ives.

S. D. Russell, "The Nook," Oakes Road, West Penrith.

G. O. Watson, 105 The Crescent, Homebush.

W. T. Boon, Bunnerong Road and Franklin Street, Matraville.

G. J. Lee, 113 Victoria Road, West Ryde.

J. W. Williams, 112a High St., Broken Hill, Minerva.

Dunninich, 29 Duff St., Broken Hill 8th.

C. B. Fleck, 20 Yoolooma Street, Griffith.

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QSL Bureau: Inwards—Graham Roper, VK3ZB, 21 Lucas St., South Caulfield, Vic. Outwards—Frank Dwyer, VK3OF, 190 Thomas St., Hampton, S.E. Vic.

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Divisional Sub-Editor: J. T. Hope, VK4XL, Royal Parade, St. John's Wood, Ashgrove.

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Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

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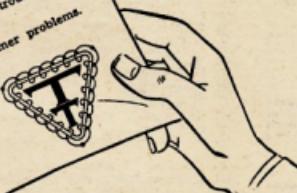
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hope that "during the year that now begins all Amateurs of the world shall work in complete co-ordination, having in view the cultural possibilities of their emissions and the spirit of fraternalism and friendliness which characterise Amateurs throughout the world."

A novel QSL comes from HK5IVY. The board is a thin shaving of wood. On the obverse in characters of velvet fabric is the call sign, while the reverse is printed with the details of the QSO and the equipment and achievements of the owner of the station. Unique and costly.

Frank Anear, ex-VK9WZ, advises under date of 31st January, that he expects to leave Momote on posting south around 24th January. After a period of leave in his home State of VK5, he expects to resume duty at Laverton around April 1st and has the usual days off. During this time he has the time to prepare in constructing a portable rig. Frank bemoans the reception difficulties in Momote, having an 11,000 volt power main running parallel with one leg of his antenna and not sufficient voltage left. His car is far out of leave Frank, and we hope to hear you on again soon, preferably under a VK3 call sign. Meantime let me have your VK5 QTH please.

QSL trans for January, 1955 QTH please. Two items indicating that possibly we are commencing to climb out of the trough of the cycle.

The writer has been on vacation at Warburton. Had some thousands of contacts during the fortnight, often running contacts and sight at the same time. Unfortunately the contacts were of a physical nature and consisted of slapping at the myriads of bush flies that would not take any other form of notice to quit. Through I had spared perpetual motion at one stage. Apologies for any delays to correspondence during my absence.

Bill Sawyer, VK4KAJ of Thursday Island, will be remembered by old timers when it was thought that the right of Sun for a fair period. Bill was the first Amateur to operate in Fiji and naturally was a much sought-after station. Writer ran shacks with him in the early thirties having 60 and 100 watts. He has had 100 watts for nine years and uses an ATU with 750 volts on a pair of 807s. Antenna is a 260 ft. long wire, if memory serves me right. Bill originally hailed from the Hurstbridge area of Victoria.

Any VK stations who contacted ODSAF, or London, and did not receive a QSL will be interested to know that the card can be obtained from G3KCE, the operator being the ex-2nd op. of ODSAF, and is also ex-MP4QAJ. Mailing address is 54 Bassett Road, London, S.W. 10.

In a 3.5 Mc. QSL to BERS156, Bob Morris, VK7WLU, says he would welcome more VK s.w.l. reports on his 80 metre signals. W7VLU runs a Viking tx with 150 watts input. ERIC HARRIS, 2AZW, recently returned from a 3,000 mile car trip. Journeying was completed in 23 days. Besides punishing the car, Eric did not sit down very long in any spot. Says now will be busy for a month painting the house. After the Lord Mayor's cart comes the tumbrel.

NEW SOUTH WALES

The January meeting of the Wireless Institute of Australia (N.S.W.) Division was held in the premises of the Federation at Science House, Gloucester Street on 23rd January. The President, J. Corbin, 2YC, opened proceedings and welcomed the visitors who had already arrived from country centres to the Capital. These callers were 2XPP, 2XZ, 2PL, 2BQ, 3M2, 2AQF and 2EL. The minutes of the previous meeting were read by the Secretary, Harry 2ACH.

A report was given regarding the very successful Xmas Party organised by George 2AO, and it was stated that a final profit of £31 resulted from the function. Members are reminded that it is the intention of the Social Committee to hold a similar function, and are further reminded that the theatre party will be held at the State Theatre, Market Street, Sydney, on Thursday, 10th March. All those desirous of being present are asked to contact George 2AO, and those applications for news items for our future activities will appear in your Bulletin each month. George gave a detailed report on the future activities of the Social Committee, and it is pleasing to learn that a Ladies Auxiliary has been formed, the members being Mrs. Williams (2ARW), Mrs. Wilson (2AGQ), and Mrs. Hickin (2ACH). These ladies will need all the assistance others can give, so we suggest that anyone interested will join the committee.

The lecturer for the evening, C. Bardwell, although he had only just arrived from Melbourne in time for the meeting, took the rostrum and delivered an extremely interesting lecture on the "Development of Marine Trans-

mitters." Ces traced the evolution of Marine Communications since about 1814 in an extremely capable manner and dealt in detail with the many systems which had been used such as the Morse, spark, and arc transmitters. Slides were used extensively to illustrate the lecture, and finally a hearty vote of thanks was proffered to the lecturer in recognition of his fine efforts. This vote of thanks was moved by Vernon 2WV.

The N.S.W. Amateur Radio Co-operative Ltd. has got away to a fine start, and the meeting authorised the N.S.W. Division to take up 150 watts of space in the Co-operative, the decision being unanimous. It is suggested that the decision to contribute, the sooner the money necessary is received, then the sooner will the objectives of the Co-operative become a reality, to the benefit of all amateur city and country areas.

The meeting closed at nearly 11 p.m. and concluded out on the steps in the usual manner.

ANNUAL HAMFEST

The next day, Saturday, 27th January, was the date set for the 1955 Hamfest, the location being again at the R.A.S. General Office building at the Showground. A tx was installed during the forenoon by Lt. Com. Greg Thorne, 2ANH and was operating till night 8 p.m. on 40, 30 and 20 metres and made many successful contacts. For those interested, the antenna was a random length of wire held up by one of the nearby stands. Registration and a general get-together took place from 1.30 p.m. to 4 p.m. and the Hamfest was over. There was a goodly crowd of Amateurs in attendance, the final figure was approx. 100. Owing to the unforeseen absence of the first speaker for the day, five lectures were given by various speakers and it is for the best lecturer was awarded to Barry White, he received a microphone donated by 3ML.

Following was a series of lectures given by members of the Police, Army and Air Forces on the Rescue and Intelligence Emergency Centre and Organisation. With the exception of Ted, he put his particular organisation tied in with the whole scheme and further illustrated how valuable was the assistance rendered by Amateurs in times of emergency. He was followed by Super. Mc-Auley, who gave a most detailed and interesting discourse on the whole organisation, what it was formed for, what it does and what it hoped to achieve with the assistance rendered by Amateur Radio in the future. He stressed that no material could not at any time be sent unless authorised by the local Police and gave illustration of the chaos and duplication which can be caused in this manner.

The following speaker, Major Cox, also spoke of his part in the scheme of things and said Sgt. Groomcock of the Police Force had been depositing in areas where crystals have been deposited at the local Police Station, that any Amateur can apply to have these crystals for the purpose of tests with VKG and VKG on Sydney at 40 m. to 100 m. wavelength. Police Authorities have received instructions on this matter and will be only too pleased to co-operate with the Amateurs in the strategic areas. Fit. Sgt. Frank Hine, 2AQ, wound up the lectures and then invited the President to thank all participants for their attendance and the interesting material they had given. A tape of this was made and will be forwarded on the country circuit in the near future. All are urged to H.A.M. and comments will be appreciated by the Council.

Following de-modulation of an 18-watt, a Dutch auction was held resulting in a win by 2EL of a 2E3B. A number of competitions were held during the afternoon, resulting in prizes being won by 2XPP, 2BQ, 2PL, 2AH, 2AB, 2BG, 2QS, 2MB and 2WV. A prize donated for the Amateur who had travelled the greatest distance was won by WEVJY. The Ladies Committee had on hand a benefit in operation all afternoon attending to the needs of the inner man, and it appeared that there was a never ending supply of cakes, sandwiches and cups of tea. Our thanks go out to Mrs. Burke, Mrs. Corbin, Mrs. Williams and Mrs. Wilson for their efforts, as do the thanks of all go to Don 2ASW and Leon 2AOJ for their tireless efforts in the dispensary of the 18-watters.

A further lecture was given on Antenna Matching by Bob Winch, 2OA, and following further activities in the form of a Dutch auction and Pick-A-Box, films were shown and the Convention concluded at late hour.

Further plans are made by the council and members to all who may play a part in the organisation, and possibly we may be permitted to single out, apart from those mentioned previously, 2VB, 2AWQ, 2EL and our compere, Ray 2ARW.

SOUTH WEST ZONE

Zone Officer Jim 2AO, of Coolamon, was of course in the big smoke for the Hamfest and passed these notes along for the zone. The

main items of interest this month has been the Xmas Party and Social held at Griffith on 14/12/54. The visitors from other zones of the city were present, and the Xmas and Yule, to say nothing of the small fry, had a really good time.

A further new call is current in the zone—3CS. Evan Savage, located at Griffith, 2AO and family are now residing in Warragul, the domicile of Eric 2DV and Peggy, Stewart 2PL. Lila and family are also holidaying at Woolongong, so it appears that a miniature Hamfest is taking place. Lynn 2AQE, of Coolamon, has moved to Queanbeyan and reported home that it will be some time before he is active from the fair city as house building takes priority. Zone representatives to visit the Convention will be 2LJO, 2PL, 2AXO, Assoc. Bruce Flock, 2AVG, and 2AOJ.

During the month the Tumut gang had a visit from 2APQ and 2HO who made some contact with Mr. Kosciusko and return stations operating on 20 m. including 2ZAA, 2BQ, 2PN and 2HO. Let us hope that before long the QRN will abate on 80 metres so that the zone ragchew will again be in operation.

NORTH COAST AND TABLELANDS ZONE

Zone Officer Noel 2AHR reports little news from his area. SUDI reported visiting Warragul where Jack 2ADT has been touring and looking in Muswellbrook, Newcastle and Sydney prior to the return to Inverell. Incidentally, Jack now has a shack at Urunga, so no doubt will be spending quite a bit of time there. Fred 2XO, who now resides at Coffs Harbour, is holidaying, but we have no reports of his movements. Ted 2AVG has moved again, is now located at Port Macquarie. We do not know where he is at the present time. Those interested are requested to contact Ted or 2AHH in order to book accommodation for the Urunga Convention at Easter. It is imperative that this accommodation is booked as early as possible as the organisers must have a reasonable idea of the numbers to be expected. As yet I do not have any details of the programme but I hand (please note Ted), but we could suggest something along the two my snapshot as there will be competitions, displays, etc. So, turn up in your hundreds, bring the XYL and the kiddies; all are assured of a full and enjoyable Easter. Don't worry about the P.R.C. and the like, ask 2AHH, he was through this way last month.

George 2AUH no sooner got his call than he moved to Sydney; he is located at Denistone and operates very regularly on 7 and 14 Mc. Alan 2ASO is now in the big smoke and is a P.M.G. monitor at Middle Head, lives at Cammeray.

HUNTER BRANCH

From Les 2AOH comes the month's news. The monthly meeting of the Branch was held at the Tighes Hill Technical School on 14/1/55, 21 members and associates being present. A notable visitor present was GLEN 2AWR, a new member, was welcomed by the President, Lionel Swain, 2CS. A very interesting film was screened, "Pipeline to the Clouds," and this in turn was followed by a lecture by Andrew 2IQ, who spoke on "Some Fundamental Aspects of Antennae." This lecture, delivered in Angus' inimitable style, provoked much discussion and many questions were asked of the lecturer.

Jim 2ZC attended the "Radio Founders' Day" outing to Glenelaw Dam as the Hunter Branch representative. Associate Rodney Trout, who is also the very able Branch projectionist, sat for his A.O.C.P. recent and all hope the results are favourable to him. Ron 2AO, who owing to medical advice has to maintain another three months' silence, in a letter sends the following information. Jack Hamilton visits Ron each Tuesday to act as Ron's second operator. 2BZ-195, a Novice, and Novice monitor, were 2ADT and 2XL and paid a visit to Ron's shack on other occasions. Mr. Charters also visited Ron behalf of Jim 2ZC.

Six members of the Hunter Branch made the trip to Sydney for the Hamfest, 2AHA, 2ATP, 2AWR, 2AO, 2AOJ and 2AOH. Dave Ellesley, and 2AOH, Dave acted as Hunter Branch representative at the general meeting on the Friday night.

The next meeting of the Hunter Branch will be held on 11th March 1955, at 8 p.m., the location being the Tighes Hill Technical College. The lecturer for the night will be decided, so for further information listen to the South Coast Broadcast. In addition, listen for 2AWX each Monday at 8 p.m. and 2ATP at 7095 Kc. for news of the Hunter Branch doings.

METROPOLIS

Apparently nothing has been occurring in this area, as we have not received any reports this month. No doubt many were recovering from the activities at the Showground. 2ABO

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A Complete Range For Every Purpose

MIC 36



£6/18/6

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Designed to meet even the most exacting requirements, this Microphone incorporates the world famous floating crystal sound cell construction. Its special characteristics are that its fine performance is not affected by vibration or shock. The fidelity is not impaired by low frequency wind noise.

SPECIFICATION

Recommended load resistance—not less than 1 megohm.
Output level—65 db ref. 1 volt/dyne/cm².
Frequency response—substantially flat from 30 c.p.s. to 10,000 c.p.s.
Directivity—non-directional.
Size—2½" spherical diameter.
Connector—Standard International 3-pin.

MIC 16



£24/19/6

MIC 35



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The MIC 35, undoubtedly the best value ever offered, is ideal for amateur transmitters, public address, etc. Housed in an attractive die-cast case, it features a high sensitivity and substantially flat characteristics. Provided with a built-in shunt resistance of 2 megohms, it will, when connected to the grid of the input valve, give a substantially flat response from 50 to 5000 c.p.s.

SPECIFICATION

Output level: —55 db ref. 1 volt/dyne/cm².
Cable—approx. 4 ft. of co-axial supplied.
Weight—6 ozs. unpacked, 7 ozs. packed.
Dimensions—microphone only 2½" x 2½" x 7"

This omni-directional Microphone is robust in construction, with a pleasing appearance. Vibration, shock or low frequency wind noise will not affect the performance. The low frequency cut-off is dependent on the load resistance. The cut-off is given by the quotation, $F = 80 + R$, where $F = \text{c.p.s.}$, $R = \text{megohms}$. An adaptor (floor mounting) is available at low extra cost.

MIC 22



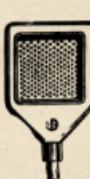
£9/18/6

SPECIFICATION

Output level = —50 db ref. 1 volt/dyne/cm².
Output impedance—equivalent to approximately 0.002 uF. (0.8 megohm at 100 cycles).
Frequency response—substantially flat from 40 to 6000 c.p.s.

Recommended load resistance—not less than 1 megohm, dependent on low frequency response.

MIC 28



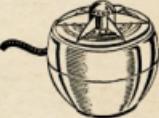
£5/19/6

Designed to give freedom of movement, this Microphone is small and non-directional. Housed in a soft moulded rubber case, which gives protection against shock, it is provided with a pin at the rear of the case for pinning to the lapel.

SPECIFICATION

Output level—approx. —55 db ref. 1 volt/dyne/cm².
Recommended load resistance—5 megohms.
Frequency response—level throughout the whole of the audible spectrum.
Capacity—0.0015 uF. at 1000 c.p.s.
Impedance—100,000 ohms at 1000 c.p.s.
Cord—6 ft. shielded cable.
Size—1-9/16" wide x 2½" long x ¾" thick.

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£6/18/6

This Microphone has been designed for the high quality public address and home recording field. High sensitivity and flat characteristics are obtained by a specially designed acoustic filter. Housed in an attractive plastic case with an unexcelled response for its size and price. Unaffected by vibration, shock or low frequency wind noise. Omni-directional frequency response substantially flat from 30 to 7000 c.p.s.

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These inserts are available in varying sizes ranging from as small as 15/16" square to 1-13/16" round, with various thicknesses from 7/32" to 9/16". Suitable for every purpose such as hearing aids, public address, tape recording, amateur broadcasting, etc., they have responses from 2250 c.p.s. to 3500 c.p.s. at 5 db to 30 db. Insert can be supplied with or without 10 meg. resistor as required.

MIC 32 insert, £2/15/6; all others, £1/19/6.

MICROPHONE INSERTS



(MIC 23 illustrated)

EXCLUSIVE AGENTS:

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SYDNEY, AUSTRALIA

is better in health again, and will be heard always bawling out, with the assistance of Alf VAU, 2ADL, who is now in the land of gold after serving a long time in the service. He has a lot of listening on 14 Mc. and gets a few contacts with 9OK, who will be in Australia in a few weeks on furlough. Another one to visit Sydney is 9DE, who will be here by the time you read these notes.

2F is well again, though the tx is still lacking, still reaches out to the thermometer parts, only worked a TF recently at 9 p.m.—must have a good beam! 2ACD also gets out with the same type of beam. 2ABW has been suffering modulation on account of the new make.

2AP, 2ZK, 2AER, 2QP, 2NQ and others natter nightly, 2AK is so sick of it he gets on the band at 7 a.m. some days. Another one heard on 14 Mc. late is 2AGU; knew the bug would bite him.

3GE is putting a nice bit of r.f. out now, will be another one for DX soon. 2ID in between feeds of sea food is heard again on 14 Mc. but does most of it on 21 Mc. Lots of calls in this area have not been heard of late. 2AK is still working away on 14 Mc. 2CW has had trouble, but the worst is over we hope 2F enjoying his retirement, drives around a bit but is having a poor year all round what with tennis, cricket and golf. 2AK is now on 14 Mc. night to hear you. Harry 2AWE busy on 21 Mc. still. 2AQH doing very well also on that band as is his next door neighbour 2AKV. 2AZN has a very fine home designed & nearly finished, his copper 3M is holding a 2000 watt CW signal several nights a week now, as is 2ADL—traps permitting. 2OQ doing nicely with the beam. 2AV had a visitor recently, 2AFS from Tamworth, who told him that he never heard the Sydney stations, couple of nights after his return home, the short skip was in to Tamworth, wouldn't it?

VICTORIA

In reply to many requests, mainly from VK5, I'm again spending time which I can ill afford to run off a few notes for this month.

The February meeting of the largest and best Division in the Commonwealth was held in the usual place—the amateur gathering point on the second of the month. After opening the meeting, the President handed the meeting to Syd 3ASC, the speaker for the evening. Syd spoke on the use and abuse of hams tools. Many other pressing topics were brought up to Syd produced. "Isn't everybody who can run to more than one screwdriver, one pair of pliers, a soldering iron and Mum's sissors?" Syd is expected to bring another talk later in the year when he will go step by step and discuss power tools. He will then be way out of my class. Here is where I take up trains. After a hearty vote of thanks, the meeting adjourned to pay homage to Lady Luck.

On remaining activities for the evening, B. Bond, 3ABX, G. Gutherford, 3ZAA; M. Williams, 3ZAW; and C. Taylor were admitted as members of the Division. Welcome gentlemen and please come to the meetings every month.

A sub-committee has been formed to look after our efforts during the Olympic Games. 3AHM and 3TE at present comprise the members of this committee. No doubt in time it will be expanded, so if you can spare a little time, keep them in mind and offer your help.

Some idle time was spent deciding the programme for next meeting. First it was to be a Swap Night, then a Picture Night when the YLs, XYLs and families would come along. Then somebody suggested that we have both on the same night. Some wag was all in favour. He was right, so we had both. I am sorry for what I did not learn, but his offer clinched the argument. No Swap Night! In short, bring your family to see "Blue Ice," a film taken in the Antarctic.

Many thanks to the chap that bemoaned the fact that meetings do not get enough advance publicity in these columns. Well fellows, I get my information from the same place as you—VK5SWI on a Sunday morning—so I feel like I am not being unfair. I have heard the "News for country members and s.w.t.s." To elaborate, I usually go back to bed after listening to VK2WI. I feel sorry for the chap who had to write the script for VK5WI, but surely after 35 broadcasts nobody knows the Call Book is available at the rooms, etc., etc. What? You didn't? Well you know now.

Just to prove I do hear the broadcasts occasionally, I heard that moves are afoot to form a Hi-Fi Group within the Division. I recall the last edition of a prominent radio journal decrating the trend of the radio enthusiasts to audio and I'm with 'em. As I see it, you're more likely to woo your transmitting members to the audio ranks than the audio ranks to us. After all, most of them know next to nothing of the technical aspect

of the business. Their theory—if it costs more, it must be better. If you doubt me, get amongst a few of them like I did.

On the other hand, pedal a bit or I'll be bucking authority again and will cop a letter written on stiff paper. After all, if I stick my neck out often enough the axe must fall. Just to show that I'm not always angry Council, I suggest the idea of Paperless Contests. Didn't mention whether they have 25 or 50 members. The main thing is to have them in the W.L.A. Good for you fellows for wanting to be in it.

By the time this hits print we will have a week to the National Radio Day and we are not going portable, put the rig on the air and give the portables some encouragement.

NORTH EASTERN ZONE

The day before last they say that Peter 3APP is temporarily leaving Interwest in Radio, but should return in due course. However Ken 3KR is keeping up his Radio, although neither he nor Lex 3A1L have had much luck on the DX. Col JWQ is throwing in a little gardening and getting a bit of sun. 3JPF is still working, lately, Hugh 3AHF is about in good form, but Jack 3PF is probably not able to go beyond the VL3QB net. Opportunity has not been made to contact the Australian contingent—Jim 3JK, Howard 3JVY and Jack 3KC. 3KZ 3HP has been busy working on his Rural Fire Brigade net, and Des 3BP has got quite an array of aerials now, but Ron 3AQG has not been accurately tracked this time.

Coming to Springfield, Associate Jim Murray of Nathalia, was recommended to contact Lee 3ALE for some good practical advice on his construction problems. Johnny 3ACK, Murray 3HZ and Brian 3ASF have not been heard of recently, and no news. Alex 3AU has been in touch with us, though. Alan 3UI is going along with his construction work, and Keith 3JC is building a new house, so placed on his block to allow the erection of a new wave trap antenna. Syd 3AS has been having more success on 2 m at times of writing. George 3GD had the place of business "burgled" recently. It is not known how Tom 3TS is getting along with his a.c.

Chas 3ACW has not been seen, so far as he was listed in Nathalia, and Des 3CO has been left there lately. Another local Frank 3EJ is also bowing quietly along his way. One of the foundation members of our zone in the post-war period, Doug Tacey, is down in the last and silent announcement. Vera 3AS along with those who were listed as 3AS. Our states Vera and Clarry in Cobram have also been left in peace, and up to the beginning of February Jim has not had any fires to fight. It is unfortunate that it is so far to Tongala, because that is the home of Stan 3AGT.

EASTERN ZONE

There is little in the way of Amateur activity this month. It would appear that some of those who were most eager to get their tickets at a low cost have now had their fun. The notes on this zone appear a little brief, it is because there is nothing much happening, or it does, one does not hear of it. George 3ABN was seen playing around with pump-liners and looking very good and could be happy; he also says he hopes to get back on the air before long. Leo 3SG was making big plans for an 813, but they seem to have fizzled out as he has not been on the air for months. It is hard to hear him now. 3BBB, 3BBB, 3BBB too, or are you too busy turning out sausages these days? Jack 3FK should have his AR88 in action before long and we expect him back on the bands grabbing the choice DX then.

CENTRAL WESTERN ZONE

Greetings, gentlemen, your worthy and unworthy scribbler, whichever you deem appropriate, for this month none other than that bewhiskered father from a nearby shack, K1K, has been shedding much perspiration in the Wimberley heatwaves. Very sudden on the constitution after the cool sea breezes on Macquarie Island I can tell you. Anyway fellers, we have had a few contacts with the opportunity of thanking all the zone members who so kindly kept in QSO with me during the year; it was certainly a first-class morale booster with special thanks to 3TA, 3AKW and 3APF. I hope all the other experienced members who used to regularly visit the radio hut enjoyed hearing the zone activities almost as much as myself.

Unfortunately the ex-VK1AC rig is still in store at Lubeck, but have hopes of getting it up and running again to join in the zone hook-ups signing 3IB once more. This time Lubeck is only a temporary QTH and will be QSY to Dimbulla about the middle of March.

The reason I was hauled into the job of compiling this month's notes is the fact that Bill 3AKW has gone galavanting away on holidays

on a sea trip to Sydney—lucky blighter. I'll give you a lesson in hanging over the rail if you ask me kindly Bill! Incidentally, Bill must be a member of the Interwest syndicate on the board to represent the Country Week's Cricket Team in Melbourne. Harold 3AX has just returned from three weeks holiday in Melbourne. Not very much news about the zone as we are a little out of touch with people at the moment. Was present at 3AKW's dinner last weekend 2m hook-up, but apart from 3DP and 3AKP at roll call, old man QRN seemed to have the upper hand.

Brian 3A1A had the misfortune to lose his new beam in a bad storm recently; tells me it was such a mess he just carted it into the local dump and tipped her in—rotten luck Byron. I know you put a lot of work into that beam too, anyway don't let this discourage, that simple dipole used to put a pretty potent signal down amongst the penguins.

Funny story of the month. IAC walking down main street in Horsham. Youngster leans out of window of parked car with the remark, "Happy Father Christmas!" Grin such is the price of fame!

QUEENSLAND

The attendance at the January meeting was very poor, and owing to the lack of a quorum, only the business that was urgent was dealt with. The Institute is now using the downstairs room of the hall.

When these notes reach you, we will be calling for nominations for Council, so please submit your application duly signed, moved and seconded, as we will be looking for new councillors. We have it on good authority they will be quite a mix-up of the old councillors not nominating this time.

Remember! Early in April for the Annual General Meeting and Annual Dinner, so keep it in mind and make your attendance at either or both of these functions a certainty. We will welcome those of you we have not seen in years.

The Contest Committee informs me 4SF and 4PQ get certificates for their R.D. scores and 4PQ got a host of gear, being the VK4 who scores next. The average of all logs points submitted by VK4-VK4.

April will be the month for the VK4 Contest. The first prize being an open order for £2/3/- and holding the Shield for 12 months, which is as promised by VK4PQ, so who say some competition will find this year. Second prize has not been decided, third prize is three 5-pin ceramic plug-in coil formers.

The rules are as last year, 1 point per contact, 1 contact per band per station, and at least five contacts between any two stations working each other but Lubeck is limited by the 31st May. Official log sheets would be appreciated though not a necessity. These can be obtained from the Secretary at a nominal price of 6d. a dozen.

Remember we still want your ideas for an Annual Convention. To date we have had only two letters submitted and as a lot of thought will have to be put in to it, the more ideas the better.

The Association wishes to note the death of Mr. Herb Core, ex-VK4HC, who was accidentally killed on 20th December at Capalaba while making frequency measurements on a tx. Herb, though a grandfather, was a relatively young man being 41. He was an Active Radio Instructor and a candidate at the Recent R.I. examination. He relinquished his Amateur license some four years ago.

TOWNSVILLE JOTTINGS

A well attended meeting of the Townsville Amateur Radio Club was held at the residence of Graham 4BX on Thursday, 13th January, and augurs well for the club this year. A welcome by the President 4RW was extended to Max 4PQ, ex-Woombye Radio Club; Bill Hare, ex-VSIFD; John Hanrahan, ex-VK3JH and Ray Bosanko, all of whom were admitted to the club.

The Secretary 4WH handed out forms for membership to WLA, and as will not be long before all are active members of the Institute. Fee for this year was fixed at 10/- for all members.

An apology was received from our guest speaker, Mr. G. G. Lubeck, for his absence due to hisändances departing for Victoria on transfer. The Secretary has arranged for guest speakers for the next three months and promises more to follow. Ray Bosanko and Allan 4PS have offered the loan of tape recorders for plain back of the ear type that may be received, so any club having material on tapes, we would be grateful for the use of same and every care will be taken and postage both ways will be met. Please let the Secretary 4WH, or the President 4RW, know as we are often on the band.



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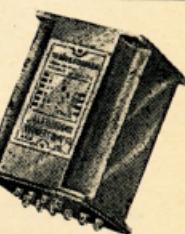
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Activity on the bands this month for DX has been very poor due to the erratic skip conditions prevailing. The far northern gang are trying to establish a new Mc Link-Cairns to Melbourne and Atherton. Also some of our members are trying to do the same between Townsville and Charters Towers as 50 Mc. band was a washout on two Sundays recently when attempts were made between the two points.

4RZ giving up the Mc Link and now on the government's band 4TH trying to hear us on 50 Mc. but no nothing doing; also trying to contact 4RW on 144 Mc., but no dice due to converter at the latter's QTH not geeting properly according to Joe 4WH who gives a report to whom no 40 Mc or w. 4BX now using his bandswitching job with an f.b. shield. 4LR re-building his low powered rig—8w. 4RU again promising to stage a comeback—another New Year's promise. 4EL not heard lately, must be due to the fact that Hill 4RW applied for N.Z.A.R.T. W.A.P. Award, phone and c.w. Quite a number of the other boys still inactive or at least not heard on the band.—4RW.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division (the Division that sets the pace) was held as usual in the clubrooms to a very representative gathering of members and visitors. The meeting opened with the evening talk by Mr. Scott Little, SAF, who chose for his subject "Macquarie Island". As ex-IAF, he spoke with some authority on his subject. Scott took a wise angle on his talk, he did not make any attempt on the political situation, but merely gave his audience an interesting account of his activities during his sojourn on the island. Possessing a very dry wit and a real down-to-earth outlook on his subject, it naturally followed that he soon had the interest of his audience and held it right up to the finish of his enjoyable talk.

The talk was illustrated with some interesting shots of the island and its inhabitants which were projected on to the screen by the epidiascope. Subsequently, the幻影图 they were projected on to a screen by a gadget which added considerably to the overall interest of the talk, and the vote of thanks proposed so nicely by Brian SCA, together with the long list of questions at the end of the talk, gave ample indication just how well Scott put his share of the evening's entertainment over.

Just in passing, I worked with Scott's father, Sam Little, in the old Central Telegraph exchange, quite a few years ago, and it was remarkable just how much likeness there was between the voices of the two Littles. Several times during the lecture I had to close my eyes and listen to Scott, and could have sworn that the father was in the room and telling us one of his many Sunday School stories for which he was noted. Of course, I was too pure to listen! Pardon the digression, but I could not help alluding to the likeness, because it stuck me as forcibly.

This was very like general business for the evening, although Luke SLL did have a few words to say on the matter of the certificates being awarded to Council members for their services, and possibly these few words were the main reason why the meeting was so short against the opinion of the Council on this matter, which was that certificates were unnecessary, both from a financial and a personal angle. However this is all to the good, and I would like to see more members get up on the platform and speak on the various topics in all matters connected with their hobby. It serves two purposes; one, that it shows a genuine interest in the business side of the monthly meetings, and two, that it does not permit the Council members to settle into a state of complacency under the mistaken impression that because nobody gets up at the meeting and voices a different opinion, or perhaps criticism, that therefore Council is always right.

At this point of the monthly notes I usually give the list of visitors present at the meeting, but unfortunately I lost mine and when I rang Gordon SXU he did not have his list, and when I rang some of the others he had also lost their list or in some cases had never had a list. This is downright in-efficiency and I will have to shake them all up.

Arthur JAWO spent a few days at the caravan park of Kilkivan, Qld, on the air, but understand that he contacted quite a few of the locals on 40 mx. Den SDX was another one heard on 40 mx from Aldings, working portable recently. He was in contact with Luke SLL when he headed him and his signal went out on the air comidering his power at the time. Luke SLL lost one of his poles in the recent big blow and as yet has not replaced it. Incidentally, OM,

I was having a little skip with the kiddies at the Picnic and your XYL joined in with me. When my feet became entangled with the rope and I was about to fall, I managed to catch hold of the announced by the said kiddies your XYL said to me, "That will get your fat down mate!" Would you be so kind as to point out to her that is not fat—it is muscle, I repeat, muscle!

Frank SLK will receive the 1954 award for the best holder of the amateur bullet. My reason for saying this is because a little dog-bird tells me that he has been putting a lot of his spare time in coaching candidates for the A.O.C.P., with a deal of success, if all is to be believed. Once upon a time Frank and I apologised for putting the spotlight of publicity on "your good deeds by stealthy campaign," but one hears so seldom of people doing something for nothing, that I feel it merits publicity.

Charlie SCR is not enjoying the health these days and we all hope that he will soon be on his feet again. Last night the local band was on 285 Mc. and he was saying that he was feeling a bit off colour. The last time that I contacted him was pre-war and was on 20 mx. Cheers Charlie and keep the old chin up. Quite a number of the old timers are thinking of you and often.

SOUTH EAST AREAS

The usual monthly meeting of the S.E. Areas was held on Thursday, 27th January, and there was a good roll-up of members with only two absentees, John SJG and John SJM. The principle attraction for the night was the course the R.D. Trophy which was well on display and all those present were able to make a detailed inspection as well as photographing it from all angles. On motion of the committee it was agreed that a note of thanks be passed to the members of the VK5 Division for forwarding the trophy so promptly for exhibition at Mount Gambier during its City Celebration Week. As far as I am concerned, it was on view for the week in width of the streets and local stores, arousing much interest and comment together with favourable publicity for the grand hobby of Amateur Radio.

John SFD brought along to the meeting an A.W. model boat and which it was proposed to use with the Robe fishing fleet. He gave a detailed description of this interesting piece of equipment and at the conclusion of his well enjoyed talk, the third most important item of the evening, was the weight of the trophy. This item was dispatched in record time and as usual finished up as an exciting race between Col SCJ and Stuart SMS to see just which one would have the last piece of strawberry cake at the meet and subscribe adherence to it. Excuse me for a moment, I have to go outside, ever since the Xmas meeting, the words strawberry cake affect me in a peculiar manner. The meeting continued until all present became hoarse and finally closed down at an hour when all good things are fast asleep, tucked up in their couches of virtues. Most of those present having no couch, and no virtue, were not dismayed at the late-night of the hour.

STW had little to report on his doings on the air this month although he was heard on the unmentionable band occasionally. Tom appeared at the meeting carrying undisputed evidence of his trip to Portland and appeared to have come out of the experience off the hook. He has managed to keep his speeds on 40 and 20 mx, but band conditions have reached an all-time high this month and this, coupled with the fact that Stuart has been busy with the Antennae and publicity side of Celebration Week meant that he had very little time for DX or what have you.

SKU reports that he has finally recovered from the visit of the stork and the new arrival is now an excellent model. There is no doubt about it. Ergo, we fathers have to take care a lot, although for some reason or other all doctors claim that they have never lost a father, yet! It's our fortitude and ability to suffer pain in silence that accounts for it I think. Don't show me to your XYL Ergo. She might give a sneering laugh like mine did when she read it, it reminded me of a hungry crocodile which had just finished sharpening its teeth. Fairly gruesome, I can tell you.

SCH has been sick and has only been able to do a little work on his new shack. Claude has been heard on the unmentionable band once or twice also, but has not been feeling much like radio. Hope all is well Claude. SCH is planning some building work on his shack and has got the secret and drawing board stage as yet. However Col SCJ is something like me, very slow to start, but brother, when we start, we never know when to stop! Of course our XYLs will tell us differently, but don't take any notice of that, they see things through their eyes, whereas we see things through our heads. Whoops! I can't see, something just hit me on the nose!

Quite a lot of traffic passed through Mount Gambier this month including Charlie 3AUP and family, Roy 3ND and family, the XYL of Jack 3AD and her brother-in-law 3LH, Hay 3ATN and YL and ZLAI4 and ZLAM4. The last mentioned boys are on a hitch-hike tour of VK and really felt important when they hit Mount Gambier and found the City Band, the Mayor and the Mayor's wife a welcome committee lined up apparently to greet them. However they were soon deflated when they woke up that it was all because of the Celebration Week festivities. It goes without saying that all of these visitors found their way to the QT's of South Australia and the famous VK3s of the famous South East hospitality. Fancy having all those VK3s in the same area at the same time, all it would want would be Pineapple would be full to overflowing. And I say, what? I was President of that Division once. All right Barbier, sit down, I can prove it. Well admit it was not for long, but you can't take it away from me. The only member of the VK3 Division to be President of the Council at the same time. That's most proud of it!

A visitor to the S.E. meeting this month was Brian SZAB who has a steel tower 80 feet up in the air, a \$22, and lots of enthusiasm. He is hopeful of continuing his present on the unmentionable band. Brian also placed on the information that Wally SBP now has a new "759" Eddystone rx and hopes to be more active in the future.

COUNCIL

Two members of the present VK5 Council did not seek re-election for next year, but aside from this change the set-up will be the same in VK5 for the coming year. Once again no new nominations were received from the membership and therefore it is to be assumed that the present members of the Council are satisfied with the VK5 Division. Whilst this state of affairs will be quite OK paper, it is somewhat a disappointing outcome that the future of the Division on the executive side. The present Council contains no newcomer to Amateur Radio and has been that way for many years. I am sure to Doreen 5CD, "Don't you ever get tired of being on the Council?" Her answer to me sum up the position perfectly, "Quite often, but where can the replacement come from, nobody seems interested."

We used to have a simple way of recruiting new members to the Council; if anybody stood up at the meeting and made a speech and said something to say, we used to grab him and talk him into the Council. Nowadays they are too shrewd, they don't even get up and speak, probably they are a wake-up call.

The two members to resign from the Council were Charlie 5ON who was handling the Divisional station WLL and Joe SJG, who has been an active worker for VK5 for more years than I care to remember. We are sorry to lose these two members from the Council, but we trust that home responsibilities in the case of Charlie, and a desire to get among the boys at the meetings in the case of Joe, must be accepted. Both agreed to help Council if at any time the services should be required for small jobs, which is at least better than was at first thought.

Talking of Councils and Committees reminds me that the following will comprise the members of the VK5 Committee for 1955: Doug SBY, Clem 5GL, Howard SXA, Peter 5CA, Cee 5CD and Scott SAF. All in all a good selection, and one that will temper judgment with understanding and common sense, which is all that the average Amateur asks in his Advisory Committee.

Still talking of Councils, even if you are not listening, I cannot help but notice the good fellowship and even tempered atmosphere that exists in the VK5 Council these days. I am not suggesting that the VK5 Council are the best, but at the moment even those warriors of general meetings of two or three years ago, Jack SJG and Warwick 5PS, never even as much as cast a dirty look at each other across the Council table. Ergo, if Doug 5CD was heard to say at a recent meeting that it was a wonder that these two did not kiss each other when they met. But that as it may, I can only say that still waters run deep, although the ton has been known to lay down with the lamb, even if the lamb kept his engine idling in top, just in case!

WOOMERA RADIO CLUB

Due to the Xmas season very little activity has been reported from the Woomera District and with most of the members of the Woomera Radio Club being absent on their annual holidays, the club station has been in a decided inactive state.

Ray 5FF has been down in civilisation for a while and has enjoyed quite a number of interesting contacts with the local boys about town. This is the first time that he has had an opportunity to operate his own rig from

his own quiet corner of the world and finds it a lot different from having to go to the club-rooms whenever he wanted to get airborne. Ray's eight-cylinder bomb, "Leaping Lena," is running sweeter than ever these days, and he is considering putting a camshaft in. Jim Gowler has taken a brush and a couple gallons of paint to his R1155 and it is almost ready to hear those CTI signals that Ray works. It is suggested that it looks more like a fire engine than the finished job.

Les SOC, who was the first President of the Club, and is now domiciled in the city of virtue, received at the general meeting from Ron SFY a super-special and trayed in a high box front of the room a present from the Woomers Club members. Glad to hear it Len, I like to hear of good work being appreciated. Ron SFY, the genial Secretary of the Club, has been down to the city and has been spending some of his time in the shop, getting up grime to wit. Gowler He tells me that he was glad to meet all the boys at the meeting and his portable rig admirably served the purpose for which it was built, enabling him to have some good fun with his old mates Les SAX and Compton SEF.

Just prior to Xmas there was a gathering at the shack of Compton SEF, and SFY had an excellent time. As far as out of this gathering I am pleased to report that SEF is more satisfied with his W filter, it is working better than expected, he hasn't worked one yet, and the coupling is excellent. Compton SEF is having little trouble in resonating his beam when the reflector is organised; the director is not, and vive-voce—commonly known as push-pull, then it can be seen that his sense of satisfaction is well founded. If you do get the way in Gowler? SAX, better known as five plank cable clamp x-ray clank, the clanks being the old-fashioned water pump outside his shack door which modulates his signal about 100% over 100% of the band. His 100W. edc. oscillator is working extremely well and is putting in a good signal in quite a lot of places. It is rumoured that a new antenna is to be erected at King Street, which will be the antenna to end all antennas. This is where I came in, so I think that I will go out again.

ANNUAL PICNIC

The Annual Picnic of the VK5 Division was held last month at the Birwood Oval and over a hundred members, their wives, the XYLs, their harmonics and visitors turned up despite the threatening look of the weather in the morning. The afternoon turned out a winner and a very enjoyable time was had by all.

I am intended to write a little about the Picnic, but time caught up with me this month and I am afraid that we will have to rely on the dear editor to give us a little space in next month's mag for a short description of the c.w. men and their natural enemies, the phone men.

Joe 5Q, together with his XYL, his mother, his sons and daughters, and their boy friends, all worked flat out to make the Picnic the success that it was. Les SAX, and Fred, Max SGM, Gordon SXU, Luke SLL, and many others did their best to entertain the XYLs and harmonics, for whom the Picnic was really intended. This was the first Picnic that I have attended. I am sorry that I missed the others, and I, in company with all those who attended, will be looking eagerly forward to the next, and what better prize can you get than the sun. Just a few closing words, though, can that Picnic have been pumping the locals. The ball that Les SAX bowled that shattered my wicket in the cricket match was deliberately bowled straight at the wicket. Can you get anything worse than that?

WESTERN AUSTRALIA

At the January meeting of the Division, those present were treated to interesting discussions on two widely divergent subjects—namely, "The Construction and Operation of the Collins 32V3 Transmitter," by Tom 6MK, and "The Evolution of the Modern Hearing Aid," by Mr. Murray.

Tom's subject was one of great topical interest and the tx on display aroused a deal of comment, especially on the way in which the power tubes were compensated in the small cabinet. Mr. Murray's talk included the demonstration of several hearing aids up to the type incorporating transistors, which were really remarkable for their compact construction and low battery consumption. A fair copy from the first electrical type of aid invented in the late 19th century which, as he calmly announced, weighed a mere 2200 lbs! A portable type later produced was "capable of being easily carried by any able bodied person," so said the manufacturer. It weighed 500 lbs! A hearty vote of

thanks to the speakers was moved by 6GH and carried with acclamation.

A new call heard on the 7 Mc. band has been 6KL from Byford, with a good signal. Noticed the call sign of Hef Woodley, EDJ, cancellation and recent condition of the health of your OM? 6VK, of Northam, was a new member welcomed at the January meeting. Vic had made the trip down especially for the evening. Another application form seen recently was from 6KJN of Kellerberrin. Though not heard on the bands as yet, he has been licensed for some time.

A strange voice on 7 Mc. one Sunday morning turned out to be Harry 6ZL working up the coast and getting out well to 6KU of Albany. GRU now sports a fine new beam array for 14, 21 and 28 Mc. Saw a photograph of it taken by floodlight at night, and it certainly shows that the man who wants to take a picture of it must be a real expert. No sign of any arrows. Every detail stands out in the absence of sun glare as in a daytime snap. Occasionally hear from 6KU, but only per landline and not on the air. It's about time you heard from 6KU. Well, and get ready, as they tell me conditions are on the improve-

6HO has been dashing about the south-west lately, last showed up in Bunbury where the gang were due for a visit. Believe 6OR's tower has now reached a vertical position with the aid of a jacking system and pulling and pushing. 6KO was interested in 7 Mc. for the first time. What's this I hear about 3.5 Mc. and 6MD Kevin? 6SP/MM on M.V. "Silver Pin" has been active on 7 and 14 Mc., with good results. 6KU has been active on 14 Mc. and 100W. QSOed a G on 14 Mc. phone while off Rottnest. When told the details, the Britisher thought he was talking to a pirate as the signal was so good! Must be the clear get-away from the boat!

6GU has been unusually quiet of late, but has found time to dash off an article for the magazine. 6EH has been tied up with chess, or something like that, until promised this article for "A.M." But you do something about it before the Editor gets to hear of it Ted! "Tis rumoured via Associate Kevin Blackwell that Tom 6EB is gradually moving towards activity again. Consideration is being given up ground heard SWZ and 6EL on 40 m.w. on Sunday morning! Two Geraldton stations on at once! 6WZ had a few air tests with his new modulator and 100W., but has had a bit of bad luck with a modulation transformer that greedily absorbs power.

TASMANIA

The February general meeting was held as usual at the clubrooms and was very well attended. Bob TOM was in the chair in the absence of the President and the lecture for the evening was very ably delivered by Bill TTY on the subject, "Wartime Coast Watchers."

Business for the evening concerned the subject of the coming Annual General Meeting and Dinner, the arrangements for which are being handled by Bill Tait and Ted Evans. It was originally intended to hold the meeting on 12th March, but it was decided to postpone it and clash with the Northern Zone meeting and dinner, and so it was decided that the date would be 26th March instead. Every year the dinner committee has had trouble in estimating the number of members who will attend and so this year a deadline has been set, after which it will be very difficult for latecomers to get a booking. So if you intend to be at the dinner, now is the Secretaries or TTY's, moment, immediately if you can remember, no booking, no dinner! This does not apply so much to country members as it is appreciated that members who have to travel long distances to attend will probably not know if they will be able to make it until the last moment.

The usual ship to shore communications for the rowing events at the Royal Hobart Regatta were again in full swing. Operators at times were Mark TMH, "A" and JDA, Ken TKA and Tom 1FM. Two mx equipment was provided by yours truly.

Queenstown has been suffering from an influx of Australian sailors lately. One evening at the shack of 1LM there were ZL4JA and ZL4MY (itch-hiking around Tasmania), VK5WW who is studying mining in Queenstown, JML and TLE who were just visiting with 1LM. The trend of the evening conversation can, of course, be imagined and a supper of hot scones was served up by Joan, XYL of TLS, including a special scone for Max 1ML who on a diet because of an excess of conditions caused by too much fishing and living. Personally I've never seen him looking better although I was present when he weighed himself on one of these talking machines—the scales! "One at a time, please!"

Harry 7BR turned up at his sweet shop recently with the tale that his bed collapsed

beneath him at three a.m. that morning. Brack has taken much leg pulling ever since, but he still maintains that he was asleep and that the bed was rotten with borers!

Concord 7B and 7OM are this month (February) celebrating their Silver Wedding. All the best to you Bob and Madge.

NORTHERN ZONE

For our January meeting VFM brought along his BC348 rx and very ably explained its workings. This was followed a series of rx evenings in which 7OM displayed his 12 wave double conversion home-built set. TLX has modified double conversion "640" and TXW his modified TX. During January another 2 mx bidded to hunt the 100W. band. The first home-built, TLX and Jim 7WB, group who spent an anxious 10 minutes locating the tx after arriving at 7WZ's car. They were greatly concerned in case 7GM and 7EQ were suddenly to come along the corner and beat them to it. The latter team also located the tx but Associates Percy Woodruff and Kevin 7BDF became entangled with TLZ's 2 mx sigs and went off in the wrong direction. Col was transmitting for the first time in a few days and the chaps will have to learn code to identify the station! A night hunt was scheduled for February, but results are not yet to hand.

VCA has been very busy with v.h.f. radio-telephone work and little time for the Amateur side. 7RK still pondering "worries" also hasn't been able to brush the cobwebs out of the rig. Col 7LZ very busy chasing 6 mx DX and arranging 144 Mc. listening watches in case of emergency. Peter 7VZ has been out to see 7OM and 7WB, and the former has returned from Melbourne; haven't seen any stray VK3 trams here either, so no shrewd gent managed to sell some of them to Henry.

TPF has settled down in a new QTH with nice v.h.f. beam already up and working. The neighbourhood, Peter, is quite friendly, particularly Mr. Lee. 7AM still very much interested in "Manx" Norbuts, but not heard on the Amateur bands. How about a come-back Lee, we'd like to hear your cheerful voice on 7 Mc. again? "TPF" we do occasionally hear, but it's a case of "all's quiet on the Inverary front" with TTE.

There are now several newcomers in areas around Launceston and we hope to extend the "welcomes" sign and would like to see you at our meetings. DX conditions in the Launceston area improved considerably in the latter end of January, particularly on 7 and 14 Mc. Although 14 Mc. was not heard much, much of the improvement was due to the efforts of 7LZ and TPF in locating bad sources of noise which the Hydro Dept. cleared up. About this time plenty 7LZ could be heard on 3.5 Mc.

The Amateur Meeting will be held at the Trades Hall, on the second Friday in March, that is the 11th. As our attendance at recent meetings has not been as good as could be wished for, how about making an effort for this important one and coming along! After all, the zone is only what members put into it.

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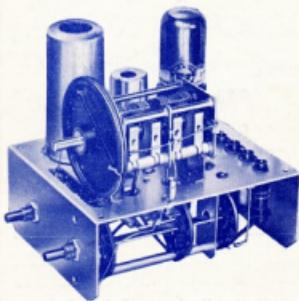
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